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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,002	07/29/2003	Martin A. Rossing	P-8630.00	8545

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EXAMINER	
SMITH, STEPHANIE R	
ART UNIT	**PAPER NUMBER**
3762	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,002	ROSSING, MARTIN A.	
	Examiner	Art Unit	
	Stephanie Smith	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-9, 11-17, 19-23, 25-29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Kroll (U.S. 5861006). Referring to claims 1-2, 12-13, 16, 20, 22, 26, and 28, Kroll teaches that one or all of the capacitor systems are charged to a minimum voltage. The charge time is noted precisely. This charge time is then used to estimate the overall charge time as T TEST which would be required for a maximum energy shock. The empirical estimation formula is derived from the following equation: Full charge time= $\frac{V_{Max}^2}{V_{Test}^2} \times T_{Test}$ where T_{Test} in this equation is the test voltage charge time (see column 5, lines 49-57). Kroll further teaches that when the maximum charge voltage is reached, the software program compares T_{Test} to the most recent charge time (see figure 6, decision block 64 and column 4, lines 4-5 and column 5, lines 19-41). Kroll further teaches one or more capacitors, a charging circuit to charge the capacitors, a voltmeter, and a control system that is preferably a microprocessor (see column 3, lines 31-56 and figures 1 and 2, elements 10, 16, 18, 42). While Kroll does not disclose that the intervals are associated with energy levels explicitly, Kroll does teach that charging the capacitor to a first voltage of 100 V requires only about one joule of energy

in a typical ICD, and accordingly, the tests performed by the invention may be scheduled so that the device consumes energy of about 52 joules per year (see column 6, lines 1-7). Therefore, it is inherent that charging the capacitor to a maximum voltage is also associated with a second energy level. Referring to claim 8, Kroll teaches the system and method described above, and further teaches that if the estimated charge time is less than the previous charge time, a soft reform is performed. If the estimated charge time is greater than the previous charge time, a reformation is not performed. Instead, further calculations are performed (see figure 6).

Regarding claims 3 and 14, Kroll teaches that the capacitors that are reformed are used in an implantable cardioverter defibrillator (see Abstract), and the reformation process is performed in conjunction with the delivery of therapeutic shocks (see figure 6). With reference to claims 4, 8, 15-16, 21-22, and 27-28, Kroll teaches that the estimated charge time is compared to the most recent charge time (see figure 6) and if the estimated charge time is greater than the most recent charge time, a soft reform is performed, if not, then the routine performs the calculations as indicated (see column 5, lines 33-41). With regards to claims 5, 7, 9, 11, 17, 19, 23, 25, 29, and 31, Kroll teaches that the overall charge time is estimated as a test time. The test time is compared against a set time limit. If the test time is greater than the set time limit, the subroutine precedes to perform a soft reform. If the estimated test time is less than or equal to the set limit, the routine precedes to perform calculations (see column 5, lines 30-41 and figure 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 10, 18, 24, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kroll in view of Kroll et al (U.S. 5899923). Kroll teaches the system and method described above, but does not teach adjusting the scheduled time associated with the reformation based on the deformation factor. Kroll et al. teach estimating the charge time and comparing it to a critical value. If the calculation yields a value below a set critical value, there will be no need for reforming and battery energy will not be unnecessarily squandered. The capacitor is not fully reformed to a maximum voltage in order to avoid committing large amounts of energy (see column 3, lines 45-67 and column 4, lines 1-7). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the capacitor reformation system and method taught by Kroll with the adjustment of the scheduled reformation time taught by Kroll et al. in order to avoid committing large amounts of energy.

Response to Arguments

Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephanie Smith whose telephone number is 571-272-2834. The examiner can normally be reached on Monday-Friday between 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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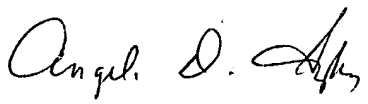

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